

KENSTON

Wind and Solar Installation by the Numbers

Project Website: www.kW4Ed.org/Kenston

OUR WIND TURBINE

TURBINE TYPE: Aeronautica 54-750

SIZE: 750 kW (Medium Utility Class)

FOUNDATION FOOTPRINT: 18' x 18' Exposed, 40' x 40' underground (10' Deep), with eight (8), 2 ½' foot by 14' deep piers

TOWER HEIGHT: 65 Meters (213 feet)

BLADE/ROTOR DIAMETER: 54 Meters (177 feet)

INDIVIDUAL BLADE LENGTH: 26 Meters (85 feet)

OVERALL HEIGHT (Ground to Blade Tip): 92 Meters (302 feet)

WEIGHTS: Overall Weight: 278,450 lbs. (Does not include Foundation)

Rotor (Blades & Hub): 24,250 lbs.

Nacelle (Section located at top of Tower): 51,800 lbs.

Tower: 202,400 lbs.

START SPEED: Generation starts at approximately 7 mph, reaches maximum generation (750 kW) at 26 mph

DATA COLLECTED: Wind Speed, Wind Directional, Temperature, Power Output, Rotation Speed and Energy Produced

POWER: Our Turbine produces approximately 1.3 million Kilowatt Hours per year or approximately 70% of the High School's annual electric consumption. This is enough to power 121 conventional or 242 energy efficient Ohio homes.

All major components of the Wind Turbine were manufactured in the United States.